

INTEGRAL VEHICLE FRONT ASSEMBLY

A body panel includes a hood portion configured to extend over and across a vehicle front compartment, and two fender portions. A unitary, one-piece inner panel and a unitary, one-piece outer panel cooperate to define the hood portion and the two fender portions. The inner panel and the outer panel comprise a substantial portion of a vehicle body front end, replacing the multitude of inner panels, outer panels, and reinforcements in a prior art vehicle body. The body panel preferably functions as a load-bearing vehicle frame portion, reducing or eliminating prior art vehicle frame components. A method of manufacturing the body panel includes forming an inner panel and an outer panel using superplastic forming, quick plastic forming, or sheet hydroforming, and connecting the inner panel and the outer panel.